DOCUMENT RESUME

ED 168 468 IR 006 940

TITLE Projects and Programs: Libraries and Learning Resources-1978-1979. Standards ESEA IV, PART B.
INSTITUTION New York State Education Dept., Albany. Bureau of School Libraries.
PUB DATE 78
NOTE 51p.; Best copy available; For related documents, see ED 115 253 and ED 162 652

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Audiovisual Aids; Counseling Goals; *Counseling Services; Educational Resources; Elementary Secondary Education; Federal Aid; Guidance Services; *Guidelines; *Instructional Materials; Instructional Materials Centers; Media Selection; *School Libraries; Teaching Methods; Testing Programs
IDENTIFIERS *Elementary Secondary Education Act Title IVB

ABSTRACT

These standards are intended to assist local school districts in New York State in selecting educational resources and audiovisual equipment and in providing for testing, guidance, and counseling services under Title IV, Part B of the Elementary and Secondary Education Act. The main purpose of the standards is to establish qualitative and quantitative measures which will set minimum levels below which educational programs cannot be effective, and which will stimulate efforts to go beyond minimum levels to achieve excellence in educational opportunity. Operational guidelines are provided for Guidance and Counseling Services, School Library Media Programs, and Educational Communication Programs. Objectives, types of programs, and/or criteria for the selection of materials and equipment are outlined for the following content areas: agriculture, art, bilingual education, business education, distributive education, drug education, English and language arts, foreign languages, health and health occupations, home economics, the humanities, industrial arts, mathematics, music, physical education, reading, safety, science, and social studies. (RAO)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED168468

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

STANDARDS
ESEA IV

BEST COPY AVAILABLE

PART B

PROJECTS AND PROGRAMS
LIBRARIES AND LEARNING RESOURCES

1978-79

The University of the State of New York
THE STATE EDUCATION DEPARTMENT
Bureau of School Libraries
Albany, New York 12234

IR002220

THE UNIVERSITY OF THE STATE OF NEW YORK

Regents of The University (with years when terms expire)

1981 Theodore M. Black, A.B., Litt.D., LL.D., Pd.D., D.C.L., L.H.D.
Chancellor ---------- Sands Point
1988 Willard A. Genrich, LL.B., L.H.D., LL.D.
Vice Chancellor ---------- Buffalo
1986 Kenneth B. Clark, A.B., M.S., Ph.D., LL.D., L.H.D.,
D.Sc. ---------- Hastings on Hudson
1983 Harold E. Newcomb, B.A. ---------- Owego
1982 Emlyn I. Griffith, A.B., J.D. ---------- Rome
1983 Mary Alice Kendall, B.S. ---------- Rochester
1984 Jorge L. Batista, B.A., J.D., LL.D. ---------- Bronx
1982 Louis E. Yavner, LL.B. ---------- New York
1979 Laura Bradley Chodos, B.A., M.A. ---------- Vischer Ferry
1980 Martin C. Barell, B.A., I.A., LL.B. ---------- Kings Point
1981 Joseph R. Bongiorno, B.S., M.D. ---------- Brooklyn
1984 Louise P. Matteoni, B.A., M.A., Ph.D. ---------- Bayside
1981 J. Edward Meyer, B.A., LL.B. ---------- Armonk
1985 Arlene B. Reed-Delaney, B.A., M.D. ---------- Albany
1987 R. Carlos Carballada, B.S. ---------- Arcade

President of The University and Commissioner of Education
Gordon M. Ambach

Executive Deputy Commissioner of Education
Joseph J. Blaney

Deputy Commissioner for Elementary, Secondary and Continuing Education
Robert R. Spillane

Associate Commissioner for Instructional Services
Vivienne Anderson

Associate Commissioner for Educational Finance, Management and School Services

---

Assistant Commissioner for General Education and Curricular Services
Maria Ramirez

Assistant Commissioner for Educational Finance and Management Services
Anthony Lease

Director, Division of Humanities and Arts Education

Director, Division of Educational Finance
Charles J. Quinn

Director of Elementary, Secondary and Continuing Education Planning Field Services
John J. Murphy

Chief, Bureau of School Libraries
Lore Scurrah

CONTENTS

Introduction	1
Guidance and Counseling Services	3
School Library Media Programs	8
Agriculture Education	13
Art Education	14
Bilingual Education	16
Business Education	18
Distributive Education	18
Drug Education	19
Educational Communications Programs	21
English and Language Arts Education	23
Foreign Languages Education	25
Health Education	28
Health Occupations Education	29
Home Economics Education	31
Humanities Education	32
Industrial Arts Education	34
Mathematics Education	35
Music Education	37
Physical Education	38
Reading Education	40
Safety Education	42
Science Education	43
Social Studies Education	44
Trade and Technical Education	46

STANDARDS
FOR
SCHOOL LIBRARY RESOURCES, INSTRUCTIONAL MATERIALS AND
EQUIPMENT, AND TESTING, GUIDANCE AND COUNSELING SERVICES

Introduction

As schools and school districts plan for the improvement of instruction through the process of developing goals,[1] identifying local needs and objectives, determining appropriate activities and the resources for implementing them, and planning for evaluation, assistance will be rendered them at critical points by Title IV, Part B of the Elementary and Secondary Education Act. This part of the Act provides for students and teachers in public and nonpublic elementary and secondary schools 1) school library resources, textbooks and other printed and published instructional materials; 2) instructional equipment and minor remodeling; and 3) testing, guidance and counseling services.

To assist local districts in planning for quality programs, Bureaus and Units of the State Education Department have condensed the most significant considerations for the selection of resources and equipment in their areas. The Bureaus of Guidance and School Libraries have similarly outlined the prime characteristics of effective programs.[2] For additional assistance in planning for a specific area, please contact the appropriate Bureau or Unit listed on the next page.

The dissemination of these Standards serves to fulfill the following requirement of the Act:

> "Sec. 134.81. The State educational agency shall develop standards which may be used by local educational agencies in acquiring expendable and non-expendable personal property (as defined in Sec. 100.1 of this chapter) of appropriate quality and in appropriate quantities."

The main purpose of standards in these programs is to establish qualitative and quantitative measures which will set minimum levels below which educational programs cannot be effective, and which will stimulate efforts to go beyond minimum levels to achieve excellence in educational opportunity. It is essential that local personnel responsible for Title IV, Part B program planning consider the educational objectives for each program and the extent to which they are attainable when making determinations as to the quantity, quality, and adequacy of the various elements.

---

[1] Goals for Elementary, Secondary and Continuing Education in New York State. State Education Department. 1974.

[2] The listing of an item as a significant component of a good program in any of these areas does not necessarily connote eligibility for purchase under ESEA IV, Part B.

For further assistance from the State Education Department, contact the appropriate unit:

Bureau or Unit	Room	Telephone Number Area Code 518
Agricultural Education	1623 TT	474-3947
Art Education	685 EBA	474-5932
Bilingual Education	304 EB	474-8775
Business Education	1615 TT	474-4802
Distributive Education	1615 TT	474-5647
Drug Education	228 ELK	474-1492
Educational Communications	325 EB	474-5825
English Education	680 EBA	474-5608
Foreign Languages Education	323 EB	474-5927
Guidance	331 ELK	474-6943
Health Education	233 ELK	474-1491
Health Occupations Education	1621 TT	474-1711
Home Economics Education	1621 TT	474-3954
Humanities Education	679 EBA	474-7810
Industrial Arts	1619 TT	474-8023
Mathematics Education	306 EB	474-5931
Music Education	681 EBA	474-5933
Physical Education	312 EB	474-5832
Reading Education	660 EBA	474-5029
Safety Education	301 EB	474-6845
School Libraries	676 EBA	474-2468
Science Education	302 EB	474-7746
Social Studies Education	322 EB	474-5978
Trade and Technical Education	1621 TT	474-3973

GUIDANCE AND COUNSELING SERVICES

The schools of the State should provide testing, guidance and counseling services which will aid pupils:

(1) To make plans for their future in and out of school
(2) To learn to identify and understand their values and how these values affect their lives
(3) To secure appropriate jobs or educational training
(4) To get along with people
(5) To learn personal planning and problem-solving skills useful in their present and future situations
(6) By helping teachers and parents understand the needs of individual pupils so that they can provide the most effective instruction
(7) By helping administrators, Boards of Education, and community understand the needs of groups of pupils so that they can plan the best use of school resources

The federal guidelines for ESEA IV, Part B state that " 'testing' and 'counseling' usually are regarded as two functions of a total guidance program."

It is recommended that the testing portion of such programs should include two standardized tests of ability and two of achievement at each level, K-6 and 7-12. Of these, one test of ability and one test of achievement should be included at the junior high school level.

It is recommended that the guidance and counseling activities include a well-rounded program of those outlined below, with varying emphases appropriate to the different educational levels. A full and effective program of activities is the goal at all levels.

All career guidance programs have one main purpose even though they provide a variety of services to pupils. This purpose is to help all pupils develop and acquire the skills, abilities, knowledge, and attitudes necessary to plan for their futures. This plan for the future, or individual life career plan, builds upon the strengths exhibited in each pupil's educational progress, and encourages all pupils to develop at their most comfortable rate. Career guidance is demonstrated strongly and clearly when each pupil has devised his/her life career plan.

To accomplish the above goals, guidance programs should provide:

(1) PROGRAM DIRECTION

Administrative or supervisory direction is needed to operate a kindergarten through grade 12 career guidance program of services for all pupils. This direction provides an opportunity for all contributors to the career guidance program (guidance personnel, administrators,

teachers, parents, pupil services staff, and community agencies) to combine and coordinate their efforts. The program thus insures the provision of educational experiences, each building upon previous events, to help the pupil move forward. To make sure that these efforts are effective, they are measured at agreed-upon checkpoints.

(2) PUPIL PROGRESS

A guidance program includes activities to help pupils in the regular program move easily from grade to grade, from one school to another, from school to work, and from school to further education and training. It provides special help to pupils who enter the school and to pupils who go to unusual inschool and out-of-school situations. It offers specific help to pupils who drop out of school. Some activities offer information, but many involve counseling and teaching.

(3) TESTING AND INDIVIDUAL UNDERSTANDING

The career guidance program through various types of testing, recognizes individual pupils' learning capacity and charts their actual school progress. It makes this information understandable and useful for pupils, teachers, parents, administrators, and other pupil personnel services staff. It compiles the data in a way that helps pupils learn more about themselves. It assists pupils to see the relationship of this knowledge about themselves to career opportunities and requirements. The testing program supplies general information to the school so that it can better meet the needs of all pupils.

(4) INDIVIDUAL AND GROUP COUNSELING

The counselor's primary method to help pupils learn is through individual and group counseling. A counselor aids pupils in the learning and growth process through a step-by-step approach. This approach helps pupils (1) clarify their problem, (2) explore the resources and talents they have at their disposal to solve the problem, (3) analyze alternative solutions, and (4) determine a course of action. Pupils come to counselors by referral and on their own initiative to receive assistance.

(5) CAREER INFORMATION

Career information is widespread. Job opportunities, educational opportunities, occupational requirements, and trends are all important categories of information available to pupils, parents, and teachers at every school level. Guidance organizes this information into a program that helps pupils use it to develop and carry out their

long-range life career plans. These plans take into consideration the life-style of workers, attitudes toward work and leisure, and how pupils view themselves in careers. Career planning includes not only the pupil's educational and vocational goals, but concerns of a personal, social, and emotional nature as well.

(6) EDUCATIONAL PROGRAMMING

Guidance assists pupils to select the best possible inschool program while it helps them to develop career and educational plans. It monitors the progress of pupils in programs so that appropriate help can be offered to enable them to take fullest advantage of their educational opportunities. It also aids pupils to secure college and job placements, assists them to obtain part-time jobs, and helps them when they select extra class and fun activities and optional school subjects.

(7) CONSULTATION

The guidance program is available to provide consultation to parents and school staff about ways to work with and understand an individual pupil's behavior and learning characteristics. In addition, referrals are suggested to community agencies when this is in the best interest of the pupil.

(8) NEEDS ASSESSMENT

Guidance collects and reviews information about the needs of pupils, teachers, and parents. Guidance then aids to relate this information to the school program and helps in revisions, if necessary. It evaluates its own activities through the use of professionally accepted methods. It collects and analyzes information about the progress of pupils and graduates and interprets the significance of this information to the school and community.

Activities in a life career guidance program are not offered by the counselor alone. Everyone in the school has responsibilities to assist pupils in career development.

School administrators have primary responsibility for the development and maintenance of an adequate career guidance program. Their understanding and support of the program will largely affect its extent and effectiveness. They must see that adequate personnel and facilities are available and that guidance aims and needs are interpreted to staff and to the community in order to gain support.

The teacher supplies data about pupils and uses information received from the guidance program to adjust teaching to individual pupils. The teacher works directly in many career guidance activities when they involve groups. Teachers supply the broad support base for the program which is necessary to serve the needs of all pupils.

The guidance counselor provides direct leadership, planning, and coordination for the complete career guidance program and is the front-line worker in the program. The counselor helps in the development of the career guidance program, offers suggestions for school curriculum and program changes, and helps in the development of new curriculum. Guidance personnel work with pupils both individually and in groups. They help pupils develop skills in the key concepts of:

(1) Data gathering (ability to gather and use information about career opportunities and alternate career plans)

(2) Self-understanding and understanding of others (ability to recognize differences and similarities in self and others)

(3) Value clarification (ability to recognize one's values and their effect on personal behavior)

(4) Problem solving and decision making (use of knowledge and skills to choose between alternatives)

(5) Personal planning (development of plans for the present and future, in and out of school)

Through counseling they help pupils apply the skills and knowledge taught in the guidance curriculum to present and future situations. One way in which the success of a guidance program can be measured is the degree to which pupils are able to use what they have learned in past situations to solve problems which arise in the future. In short, the best guidance program is the one that becomes so much a part of a pupil's thinking that the need for continual outside help is steadily reduced.

The pupil services team (guidance counselors, school social workers, school psychologists, school attendance teachers, and school nurse-teachers) helps to identify, interpret, and meet the needs of pupils. In addition to direct assistance to pupils when these needs are identified the team provides information and insights helpful to plan and evaluate the school's program. It is important that all members of the pupil services team understand the objectives of each service in the team. In this way, they are able to work together efficiently for the good of the pupil.

Supportive guidance personnel (e.g., guidance aides, paraprofessionals) assist the professionally trained staff. Under supervision, they do many of the routine and semi-professional tasks to free the counselor to work with pupils. The number of supportive personnel required is determined after a study of the needs in each school district.

Secretarial assistance is necessary to the efficient functioning of a program. A secretary-receptionist, available for the full school day in each guidance office, also frees the counselor to work more directly with pupils and others within the school and community.

To accomplish the activities in a total career guidance program, professional guidance staff is required. The actual number will vary due to local conditions, the needs of pupils, and the degree to which the community desires to implement the program. Past experience indicates that in the typical elementary school one full-time counselor is needed to carry out a full program. In the junior, middle, and high school, counselors are most effective when available in proportion to the instructional staff, one counselor for each 12 to 17 classroom teachers, for example. This proportion assumes that adequate clerical and other supportive services are provided and that unusual pupil conditions do not exist (i.e., very high bilingual population, disadvantaged population, extreme mobility).

Facilities, equipment and materials needed to carry on the various program activities include: appropriate space for individual counseling and group counseling or group guidance; a library or media center for collecting, storing, displaying, and using educational, occupational, and other career related information and materials; equipment to house pupil cumulative records and guidance forms and testing materials and equipment.

SCHOOL LIBRARY MEDIA PROGRAMS

Standards are the goals which encourage the development of excellence in education. These standards provide a useful tool for assessing the adequacy of school library media programs in New York State. The Regulations of the Commissioner require that a school library be established and maintained in each school, and that the library meet the needs of the pupils and provide an adequate complement to the instructional program. Although a sound program of school library media service must be based upon quality, good quality is not possible without certain requisite quantities of materials, service, and physical facilities.

Objectives. Every school library media center should develop and periodically revise an explicit statement of its objectives in accordance with the purposes and objectives of the school.

Resources and Equipment. The collection should contain quality items that are currently useful, selected specifically for the students and teachers served. Highest priority is placed on those materials that meet direct curricular needs, but the collection also includes resources that arouse intellectual curiosity, that help to develop critical thinking and cultural appreciation, and that stimulate the use of resources for personal development and recreation. The development of a written selection policy adopted by the Board of Education is of primary importance.

The following quantities are recommended for individual schools having 500 or more students:

	Phase 1	Phase 2	Phase 3
Print Materials			
Books per student	12 volumes*	18 volumes	24 volumes

A strong collection of standard reference works is needed, to include subject and general bibliographies, and periodical indexes. Professional resources should be budgeted annually.

Periodical Titles	Titles		
Elementary (k-6)	25 magazines	35	50
	3 newspapers	4	6
Junior High	75 magazines	85	100
	6 newspapers	8	10
High School	75 magazines	100	125
	6 newspapers	8	10

*6000 volumes are a basic minimum regardless of the number of students.

Pamphlets

Files of pamphlets, vocational and ephemeral materials, and government documents should be systematically acquired, maintained, and weeded.

Microforms	Types and quantity vary with program needs		
Microform equipment	1 Reader	1 Reader 1 Reader-printer	3 Readers 1 Reader-printer

Visual Materials-Still Images

There should be sufficient equipment and adequate duplication to make visual and aural materials readily available. Instructional equipment is selected on the basis of quality of performance, effective design, ease of operation, competitive costs, portability and/or accessibility, ease of maintenance and repair, and available service. Specifications as to function and quality should be carefully developed.

Filmstrips (silent)	750 prints	1000 prints	1500 prints
Filmstrips (sound)	375 prints	500 prints	750 prints
Slides	1000 items	2000 items	3000 items
Transparencies	500 items	1000 items	1500 items
Graphics: Posters, Art & Study Prints, Maps & Globes	500 items	800 items	1200 items
Filmstrip projector (silent and/or sound)	1 per 75 users	1 per 50	1 per 25
Filmstrip viewer	1 per 45	1 per 25	1 per 10
Slide projector	1 per 75	1 per 50	1 per 25
Slide viewer	1 per 75	1 per 50	1 per 25
Overhead projector	1 per 75	1 per 50	1 per 25

Visual Materials: Moving Images

16mm Films (sound)	Access to a minimum of 3000 titles. Where specific titles are used frequently, building level purchase may be warranted. Generally 16mm films should be rented or borrowed from BOCES, with sufficient funds made available for this purpose.

Super 8mm Films (sound)	Acquisition of Super 8mm films (cartridge or reel) will vary with program needs.		
Super 8mm Films (silent) Film loops	200 films	300 films	500 films
Videotapes	Acquisition of videotapes will vary with program needs.		
16mm Film Projector (sound)	1 per 200 users	1 per 150	1 per 100
Super 8mm Film Projector (sound)	Acquisition of Super 8mm sound film projectors (cartridge or reel) will vary depending on the availability of materials in this format.		
Super 8mm Film Projector (silent)	1 per 75 users	1 per 50	1 per 25
Video Playback & Reception Equipment	Acquisition of video playback and reception equipment will vary depending on the availability of materials in this format and on program needs.		
Auditory Formats			
Audio Recordings: Tapes (reel to reel), Cassettes, Discs, Audio cards	500 items	1000 items	3000 items
Audio Equipment: Tape recorders, Record players	1 per 75 users	1 per 50	1 per 25
Listening Units Earphones	1 set per 75	1 set per 50	1 set per 25
Portable listening Unit	1 per 75 users	1 per 50	1 per 25
Tactile Formats Games, toys, models, sculptures, specimens	200 items	500 items	800 items
Media Kits and Programmed Learning Materials	Types and quantities vary with program needs		

LOCAL PRODUCTION EQUIPMENT — Types of equipment needed vary with the school, district and BOCES production programs.

ORGANIZATION OF MATERIALS. Library media collections should be organized by nationally approved rules for prompt identification by author, title, and subject, and arranged for efficient retrieval. Resources arranged by subject on open shelves, centralized administration and control, cataloging and classification supplemented by user-responsive groupings contribute to efficient retrieval. The potential of technological retrieval should also be explored.

DELIVERY OF SERVICE. The delivery of library media services is based on user need. Not only are services organized with sufficient flexibility for quick response to students, professional staff and parents, but needs are anticipated through the participation of library media center staff in curriculum development. Patterns of referral and access to regional collections are well developed.

FACILITIES. The physical facility of the library media center provides sufficient space and furnishings for present operations, and is so located as to permit growth and physical expansion. Every elementary library media center should provide at least 900 square feet and every secondary library media center at least 25 square feet for 10% of the enrollment.

ADMINISTRATION. The library media program includes responsibility for all library learning resources and services. Access to resources available in district collections, BOCES and New York State Interlibrary Loan (NYSILL) collections is an important component. A staff manual clearly outlines all duties, procedures and policies.

BUDGET. To maintain an up-to-date collection of resources (excluding textbooks and equipment) after the base collection has been established, the following percentage of the national average for per pupil operational cost* should be budgeted:

Phase 1	Phase 2	Phase 3
1%	3%	6%

*The 1975-76 expenditure per pupil in average daily attendance in public elementary-secondary schools was $1,388. National Center for Education Statistics. Statistics of Trends in Education 1963-84. Washington, D.C.: United States Office of Education, January 1975.

REFERENCES:

The publications below may be useful in program development. Unless otherwise noted, the publications are available from the Bureau of School Libraries.

An Overview of Suggested Procedures for Improving Methods of Textbook Selection. State Education Department. Bureau of Elementary Curriculum Development.

The Effective Elementary School Library Media Center: Environment, Organization and Control. (In Bureau of School Libraries News & Notes. The State Education Department. Vol. 10, No. 2. January 1974.)

The Effective Elementary School Library Media Center: School Library Media Programs: An Integral Part of the Elementary School Curriculum. (In Bureau of School Libraries News & Notes. The State Education Department. Vol. 10, No. 2. January 1974.)

Facilities for School Library Media Programs. The State Education Department.

Media Programs: District and School. Prepared jointly by the American Association of School Librarians, ALA; and Association for Educational Communications and Technology, NEA. 128 pp. 1975. $2.95 (paper). This publication can be purchased from the American Library Association, 50 East Huron Street, Chicago, Illinois 60611 or from the Association for Educational Communications and Technology, 1201 Sixteenth Street, N.W., Washington, D.C. 20036.

Selection Guidelines: School Library Resources, Textbooks, Instructional Materials. State Education Department.

Standards for School Media Programs. Prepared by the American Association of School Librarians, ALA; and the Department of Audiovisual Instruction, NEA. 66 pp. 1969. $2.00 (paper). This publication is out of print and has been superseded by Media Programs: District and School.

INSTRUCTIONAL MATERIALS AND EQUIPMENT

Agricultural Education

Schools offering agricultural education programs are encouraged to use the following criteria in selecting resources and equipment to improve and expand the program. The major components of an agriculture program include structured classroom shop, or laboratory instruction; supervised occupational work experience; and student leadership training. These components should be considered in each school's planning.

1. The items acquired contribute directly to the objectives of the vocational agriculture program.

2. The new acquisitions improve the existing agricultural offerings or expand the program by facilitating new offerings.

3. The items allow the school to improve the agriculture program by:

   - improving teaching methods and teacher competencies
   - introducing new or advanced modules of instruction
   - increasing student understanding of specialized agricultural content
   - evaluating student performance and accomplishment

4. There is a balance between student use items and teacher demonstration material.

5. Consideration has been given to selecting current and appropriate size equipment and materials, as well as maintenance requirements.

6. The items are maintained and housed in the agricultural facility.

7. The items are appropriate for the grade level and level of specialization covered by the program.

8. Facility planning has taken place to provide for installation of additional equipment.

9. The teacher has sufficient understanding and competency to make use of equipment and materials.

Art Education

General Philosophy and Objectives

An art education program in elementary and secondary schools should be highly individualized, combining the characteristics of the students, the teacher, the community and available resources for the purpose of enabling each and every student "to become all he is capable of being," so that he will develop both the means and the desire to live to the fullest in a world of random focus and to improve the conditions of life in which he finds himself.

The thrust should be to help the student to see, to feel, to think, to express his thoughts and feelings, to make choices and to evaluate through a wide variety of studio experiences in the visual and plastic arts.

The basic elements of art to be explored and understood by each student according to his level of maturation are space, light and color, form (shape), line, texture and movement. Every effort should be made to keep the program current with contemporary modes of visual and plastic art expression, such as: film and video, photography, environmental design and conceptual art.

Integrating visual arts activities with other subject areas is highly recommended. The Bureau of Art Education can provide information on Project SEARCH, a demonstration project of the Division of Humanities and Arts Education which has, as one of its major objectives, integrated the arts and RITA (Reading Improvement through the Arts) project.

Facilities

An adequate program presupposes the existence of an adequately equipped studio of at least 1,200 square feet. There should be a separate and clearly defined area with:

- adequate working, demonstration, display and storage space
- proper heat and lighting for creative art work
- sinks with hot and cold running water and clay traps
- facilities for audiovisual presentations, which include ways for darkening the room
- equipment such as easels, printing presses, potter's wheels, kilns, etc.
- a wide variety and abundance of materials with which the students can work; and most important -

An open studio for interested persons not only from the school, but also from the community, whether enrolled or not enrolled in specific art classes, should be maintained.

Equipment

Equipment needed but frequently not available for a good art program:

drying rack, metal, portable with metal trays
camera, super 8mm with zoom and stop action capabilities
projector, super 8mm for film with sound strip
projector, carousel slide, ektagraphic autofocus with remote control unit
portable video cameras with zoom lens
video special effects generator; video tape deck
ceramic kiln with firing chamber no smaller than 18" wide by 18" high, and pyrometer
a variety of modeling and carving tools for 3 dimensional design
print making press with 12" x 24" bed
drymount press with tacking iron
camera, 35mm single lens reflex
potter's wheel, electric with seat
kiln, metal enameling
enlarger trays
loom, table, 2 harness
looms, adjustable frame
drafting machine
power drill, ¼"
sabre saw
enlarger, condenser
contact printer
print washer
print dryer
timer
developing trays

Resources

The art education program should have available resources from the school library media collection which will keep the program current with contemporary modes of art expression. Items which should be included in such collections are: two-and three-dimensional art reproductions, slides, filmstrips, films, videotapes, realia, art reference books, biographies of artists, books of techniques in the arts and crafts, and of the history and aesthetics of art. Also needed will be well illustrated materials in the content areas which will facilitate the coordination of art activities with teaching in the other disciplines, and art periodicals.

The Bureau of Art Education, State Education Department, has prepared publications for both elementary and secondary schools which should be referred to for detail:

Art Appreciation for the Elementary School
Art for the Elementary School
Mechanical Drawing and Design
Planning the Art Room
Studio in Art-Comprehensive Foundations Course
Studio in Painting, Drawing, Graphics and Photography
Studio in Sculpture, Ceramics and Jewelry
Visual Arts Handbook
Visual Impact of Writing

Bilingual Education

Described below are suggested types of instructional programs for children whose dominant language is not English. The school administrator may decide to use more than one of the models described in order to meet the diverse needs of the target population or a unique local model or models may be created. Title IV B outlined purposes can help these programs. In these examples "Spanish" is used as an example of the native language of the student although it could be any other language. All programs should include daily activities in which students of the target population are together with their English dominant peers.

A. Bilingual Education Programs

The major objectives of bilingual instructional programs are to educate non-English-speaking children and those of limited English speaking ability in two languages in all areas of the curriculum and to develop an awareness and understanding of the cultural heritage of the ethnic groups within the school.

Type A1 - A Full Bilingual Program. This program could begin in kindergarten or grade 1 (pre-kindergarten where such classes exist) and sequentially through the grades. The instructional program should be planned to begin with instruction for the major portion of the school day in the student's mother tongue. The contact time with the student's target language will increase as the year progresses. Usually by the end of the second year or within the third year, students should be spending 50 percent of instructional time daily learning in each of the two languages.

Type A2 - A Modified Bilingual Program for kindergarten and elementary grades. This program may begin at any grade level. The instructional program for Spanish-dominant students should be designed to provide learning experiences in the student's mother tongue in all major subject areas of the curriculum with English as a second language for 20 to 30 percent of the day. The contact time with English should increase gradually as the school year progresses.

Type A3 - A Modified Bilingual Program for intermediate and upper grades (Spanish emphasis). The instructional program should provide learning experiences in Spanish in the major subject areas of the curriculum, including Spanish as a first language, for 80 or 90 percent of the school day with 10 to 20 percent of learning time in English as a second language.

Type A4 - A Modified Bilingual Program for intermediate and upper grades (English emphasis). The instructional program should provide learning experiences in English as a second language 60 percent of the school day with 30 percent of the time learning in the academic disciplines in Spanish (Mathematics, Science, Social Studies) and 10 percent of the time for instruction in Spanish as a first language.

B. English as a Second Language Programs (ESL)

The major objectives of the English as a second language programs should be to develop competency in the understanding and speaking of English; to orient the student to the mores of his new environment; and to provide emotional security for the student through his contact with teachers and other school personnel who speak his language. Depending upon the age of the student and time spent in an ESL class, the development of the skills of reading and writing English are important program objectives. In organizing ESL classes, consideration should be given to the chronological age of students and their competency in understanding and speaking English. It is advisable to have no more than a three-year age differential within a group.

Bicultural educational experiences should be provided in all ESL programs. Present ESL programs generally exclude this important element.

Type B1 - ESL class and regular classroom program. In such programs non-English speakers receive instruction in English for part of the day and are in classes with their English dominant peers for the balance of the day. Minimal instructional time in English should be three hours daily. Emphasis should be on audio-lingual competency in English and English as it relates to curriculum content.

Type B2 - Total ESL Immersion - preferable for lower primary grades. The instructional program provides learning experiences in English as a second language for 80 percent of the day, instruction in the major subject areas in native language 10 percent of the day, and joint participation in other school programs and activities with their peers for 10 percent of the day.

Conclusion

Although two approaches are given for the education of non-English-speaking children, and children of limited English speaking ability, the major thrust should be the bilingual education approach.

Title IV B can provide bilingual guidance counsellors with native or nearly native language speaking abilities concerning the language the children bring from home. One critical level is the Junior High School level where future programming takes place. Other supportive services can include school library resources for bilingual program participants; specific instructional materials prepared in the students' native language in specific subject areas, and English as a Second Language materials; equipment such as recording devices and language laboratory equipment; proficiency, and testing instruments for identifying abilities, aptitudes and interests.

Business Education

The Bureau of Business Education recommends that school administrators and business teachers refer to each of the business education syllabi for recommended equipment and learning aids for the various business courses. The following list includes instructional equipment, resource materials, and other instruction aids which are often unavailable or in short supply:

- Multi-channel dictation equipment for shorthand laboratories
- Individual cassette tape, tape or record players for classroom or home use
- Films, filmstrips, projectors and screens
- Overhead projectors and transparencies
- Instructional cassette tapes or reels for self-paced, independent study
- Office machines used in classroom instruction (minimum value $25)
- Dictionaries, secretarial handbooks, and other individual secretarial reference aids
- Books and other printed and published materials
- Simulations (not including expendable materials)
- Reusable workbooks intended for use as a principal source of study material for a particular class
- Wall charts related to instructional program
- Videotaped materials

Distributive Education

To simulate the working environment for distribution and marketing, basic instructional components would include: classroom laboratory, school store and office or small conference area with supplementary resource materials. Equipment suggestions are as follows:

Essential	Very Useful
Actual or dummy merchandise	Adding machine
Cash register	Ad layout table
Cashwrap unit	Display forms
Display cases	Display props
File cabinets	Fitting mirror
Filmstrip projector	Mannequins
Merchandise units	Opaque projector
Movie projector	Pegboards
Overhead projector	Portable lights
Projection screen	Shadowboxes
Record player	Single-concept projector
Shelving	Study carrels
Slide projector	35mm camera
Tape recorder	Showcase or sign printer
Telephone	Sign holders
Work tables	Tool cabinet
	Typewriter and desk
	Videotape equipment

The preceding list is not all inclusive and will vary depending on the marketing clusters selected for specialization in the 12th grade. Occupational competency is the student's goal, so a wide range of equipment, textbooks, instructional materials and resources is needed for specific marketing clusters. Local and regional employment opportunities plus individual student career goals should determine the clusters to be offered.

A realistic learning situation for individualized or small group instruction may be provided in many ways:

- Subscriptions to trade publications for up-to-date market information (Advertising Age; National Retail Merchants Association publications).
- Tape recorder for interviewing for marketing research or student job interviews for playback
- Photographic equipment for pictures of display windows for classroom critique
- Mannequins and seasonal display kits for school store and classroom-laboratory display experience
- Library reference books (history of fashion, geographic information for travel curriculum)
- Room, reservation, mail and key racks, posting machine for hotel-motel front desk operation
- Calculator for credit computations
- Films and slides of shopping centers, retail and wholesale operations not readily available for student visits

Useful references prepared by the Bureau of Distributive Education:

- Distribution and Marketing Syllabus. 1974.
- Visual Merchandising through Display. 1972.
- Advertising Services Module. 1976.
- Business and Distributive Education Classrooms and Facilities. 1965.
- Fashion Merchandising. 1969.
- Franchise Merchandising. 1969.
- Distribution 1 & 2. 1965.
- Travel and Tourism. 1977.
- Wholesale Distribution. 1977.
- Fashion Merchandising Module. 1977.
- General Merchandising Module (in preparation).

Drug Education

Overview

Education regarding the use and misuse of drugs, alcohol, and tobacco must include an understanding of the factors related to (1) personality development, (2) social and cultural influences, (3) human motivation, and (4) the pharmacological effects of these substances. The teacher should use approaches based on the nature of the learner, his experiences, abilities, interests, needs and motivational level.

Although the basic principles of learning will be the guideposts for teaching about the sociological health problems, problem-solving techniques, independent study, and group discussions and exchanges should be emphasized. Negative approaches, authoritarian approaches, question and answer recitation, and lecture methods are frequently ineffective. On the other hand, drug education should include opportunities for students to make decisions relative to personal involvement; they should learn to base these decisions on reliable data. The quantity and quality of the information available to the student, and his/her understanding of it, will determine to a great extent the degree to which he/she will develop an intelligent basis for his/her behavior regarding drugs, alcohol, and tobacco.

Learning experiences should relate directly to the development of respect for all medicines, drugs, and chemical substances. These include prescription and nonprescription drugs, as well as tobacco and alcohol. Sociological health problems are becoming increasingly more significant in our society, and students must be given the opportunity to understand the broad sociological implications relative to all substances which have potential for abuse. They should understand:

- the nature of the drug problem for their age group
- the kinds of prevention and solutions available
- how they can become involved in these solutions
- the role of community agencies and community action in dealing with these problems

Methods

There are no known instructional methods which can be guaranteed to work in all situations or for all ages of children and youth. Among these that show promise are:

- Student analysis and reporting of research on various drugs
- Student panel discussions to explore their concerns about drug abuse problems
- Value clarification techniques
- Research conducted by students into drug beliefs and drug practices
- Student-conducted discussions, both in small groups and in full class
- Student-selected topics for library research projects
- Art, poster, newspaper, and similar projects to inform other students about drugs
- Peer group techniques
- Student analysis and discussion of films and other media dealing with drug topics
- Student participation in planning and conducting the classes both in contents and method
- Role playing of a wide variety of situations dealing with problems and decisions about drugs

- Presentations by outside resource specialists with student reactor panels
- Collection and analysis of newspaper stories, magazine articles, and other published accounts of drug events
- Decision-making skills

Guidelines for Selection of Instructional Materials

No evaluation group could produce a complete list of materials which would meet the varied drug program needs of every New York community. Because so much material is being released by publishers, any list would be out-of-date, almost before it could be completed. The following evaluative criteria are offered as a guide in choosing materials:

- Does it accurately represent current findings?
- Is it suited to the goals, methods and purposes of the teaching unit it is to support?
- Does it avoid moralizing?
- Does it provide for and support personal or group decision making?
- Is it appropriate for the students (age and social needs) with whom it is to be used?
- Are the costumes, properties and language up to date?
- Does it emphasize the dangers of drug abuse?
- Does the material contain information, such as specific drug-taking techniques, which is inappropriate to the educational environment?
- Is discrimination avoided (racial, religious, ethnic, sexist)?
- Is the material relevant for the target group of students?

Educational Communications Programs

The usefulness and effectiveness of an educational communications program depends primarily on the degree to which teachers and students are actively involved in the processes of evaluation, selection and use of media and technology in achieving specific instructional objectives. The educational communications program must be proactive within the educational system from curriculum decisions to decisions on teaching strategies.

The focus of the educational communications program is the teaching station. Therefore, the educational communications area in the school must be located where the traffic of instructional technology services to teaching stations is concentrated.

Regardless of the size or accoutrements of the educational communications program and area within a school, the measure of effectiveness of the program is the degree to which its materials and services meet specific curricular needs in the most cost effective manner. Quantitative standards for aural/visual media and allied technologies that represent the educational communications program are less important than the specificity of

their selection and use. The most salient element in evaluating the program is the measure of how well each unit of media and each technological device available serve instructional objectives. In addition, the efficiency of use of all resources must be the foundation for all planning and management of the educational communications program.

The vitality and currency of an educational communications program depend in part on the possession of a continual flow of information of new materials and devices. new strategies of use and improved methods of acquisition and management. It is essential, therefore, that communications personnel be in continuous communication with professional staffs and information sources at the district, state and national level. In this way the school or school district will inevitably benefit. For example, substantial savings to schools in the acquisition of media and technological devices have been achieved through consortia. Illustrative of such benefits and savings is the present Government and Industrial Films for Teaching program in which hundreds of school districts which are part of a Statewide Consortium are able to access large quantities of sponsored films via videotape. Another example is a recent group purchasing contract in which more than 100 New York State districts purchased classroom television receivers at prices considerably lower than those prices offered by New York State Contract from the Office of General Services. Through continual communications and cooperation among the schools, educational communications programs can better achieve their goal of maximum cost effectiveness.

Media

Media selected for helping to achieve instructional objectives in the form of 16mm film, video cassettes, filmstrips, overhead transparencies, 2 x 2 slides, phonograph records, audio cassettes, audio tape, maps, pictures, globes and microfiche cards should be available and accessible for the instructional process (i.e., classroom, teaching station, independent study area) on the basis of the predictable use and cost of such media. Media, both expensive and inexpensive, whose extensive use can be safely predicted based on teacher agreement may be acquired for the individual school. Other types of media whose predictable use will be less frequent may be more efficiently accessed from a central, shared-service facility. Such facilities may exist at the district level or in the educational communications area of a Board of Cooperative Educational Services or from outside loan sources.

Quality and appropriateness of all media to be used should be evaluated by means of a selection policy adopted by the Board of Education. Production of media should be considered only after a careful search has been made for existing media that would satisfy need. All new media should be acquired as the result of curricular planning, and with full understanding of teaching styles and preferences within the faculty.

Facilities

The educational communications area where the traffic of instructional technology services for all teaching stations is concentrated should be reflective of the educational communications program.

Space for the educational communications area is entirely dependent on the scope, design and traffic of the educational communications program. Location of the facilities for the most efficient operation of the educational communications program in helping to achieve instructional objectives is of prime importance. Accessibility for receiving and dispatching media and technology, adequate electric power, production spaces and storage space are all critical factors to be considered in the location of facilities for the educational communications program.

Administration

The educational communications program includes responsibility for (1) search, identification, preview and recommendation of media for specific curricular objectives, (2) consultation in developing media application to instruction, (3) maintenance of instructional devices, (4) in-service training in the use of newer media and technological devices, (5) acquisition of media, and technological devices, (6) coordination and deployment of school or school district learning resources, (7) production of media, and (8) budget development on a cost-effective basis. A staff manual with instructions on how to access program services should detail precisely all procedures and responsibilities in keeping with the administration policies of the school or school district.

Technological Devices

Program decisions based on curricular needs determine the type and quality of technological devices required for achieving instructional objectives. Certain devices may be considered essential to present day education and are already in widespread use throughout the schools. The 16mm projector, the TV receiver, the overhead projector, the phonograph, the filmstrip projector, the 2 x 2 projector, the opaque projector, and the audio cassette player could be classified as essential technological devices. Sophisticated technological devices are becoming more numerous and include the computer terminal, the mini and micro computer, portable TV cameras and recorders, instant photo processing cameras, electronic calculators and sound motion picture cameras. In this latter group of newer technological devices it is particularly important to apply the most stringent cost-effective procedure in acquisition and deployment. Careful analysis of predicted needs and uses of all technological devices must be made to determine the lowest acceptable quantity and the most efficient method of acquisition. All decisions for the acquisition of technological devices should be derived from responses of preference of faculty and administration, and should be in accordance with educational communications management practices particularly with consideration of maintenance costs.

English Language Arts Education

The following criteria may be used by schools in the selection of resources and equipment for English Language Arts programs:

1. The items must contribute specifically to the objectives of the instructional program in English Language Arts.

2. The items should reflect the school's effort to introduce improvements in the program through such means as:

   a. Increasing student understanding of content
   b. Offering specialized content
   c. Developing greater student skill
   d. Evaluating student achievement
   e. Enriching student experiences
   f. Introducing new subjects and more advanced courses
   g. Improving teaching methods
   h. Increasing teacher competencies

3. The school should have in writing practices and procedures which:

   a. Ensure quality and appropriateness (such as by previewing, and by consulting evaluations of materials in professional magazines and sources suggested through the school library media center)
   b. Provide a procedure for handling challenged materials
   c. Avoid needless duplication among classrooms, related materials, and school library media collections
   d. Ensure curriculum coverage
   e. Provide for diverse learning skills for students of different interests and abilities

4. The items should stimulate students' interests and desirable attitudes toward English.

5. The items should reflect proper balance between student participation in activities and teacher demonstrations and presentations.

6. The items should be appropriate for the grade level and type of activity in which they will be used.

7. The items should provide a potential for learning not otherwise available in the program.

8. The number of items requested should be adequate for the number of students and teachers using the equipment or materials at the same time.

9. The quality and durability of the items must be in keeping with the desired performance.

10. The costs must be compatible with the durability and performance.

11. Consideration must be given to the selection of recent models of equipment, up-to-date materials, and maintenance requirements.

Further Considerations:

1. The teachers should have the competency to make effective use of the equipment and materials. Where necessary, the school or school system should have inservice programs to ensure this use. (The school library media program can be helpful here.)

2. Materials should be quickly and easily accessible to the students and the teachers requiring them.

3. A good English Language Arts program typically makes use of the following, which should be available in the school library media center and/or in classrooms:

   a. Films, projectors and screens
   b. Film strips
   c. Tape recorders and tapes
   d. Records and record players
   e. Overhead projectors
   f. Videotapes
   g. Classroom collections
   h. Library books
   i. Magazines and magazine racks
   j. Files of pictures, charts, maps, etc.

Useful materials in the above categories are described in the following publications:

1. English Journal (Magazine). NCTE, 1111 Kenyon Road, Urbana, Illinois 61801. $15.00 per year.

2. Language Arts (Magazine). NCTE, 1111 Kenyon Road, Urbana, Illinois 61801. $15.00 per year.

3. NCTE Guide to Teaching Materials for English, Grades 7-12. NCTE, 1111 Kenyon Road, Urbana, Illinois 61801. 1974. 171 pp. $3.95 to NCTE members.

4. _____. Supplement. 1975. 129 pp.

5. NCTE/ERIC Report on Language Arts Instruction Via Audio-Visual Aids. Robert V. Derby. (In Elementary English, May 1969. pps. 612-621. NCTE, 1111 Kenyon Road, Urbana, Illinois 61801.)

Foreign Languages Education

The Bureau of Foreign Languages Education recommends that schools be guided by two major criteria in the selection of materials and equipment for the foreign-language program: (1) that materials and equipment be considered on the basis of their serving a specific need as determined by the objectives of the course for which they are intended (i.e., they should be objective-effective), and (2) that those materials will assist in the most efficient and economical achievement of the objectives (i.e., they

should be cost-effective). For example, if one of the course objectives is the development of the four language skills, the materials and equipment selected for that purpose should represent the most efficient and economical means of providing practice in listening comprehension, speaking, reading, and writing.

It is further recommended that the process of selection include the following steps:

1. Identification of course objectives.

2. Review of all available materials and equipment that have potential for helping students and teachers achieve those objectives.

3. Rating of all materials and equipment reviewed as either "Excellent," "Acceptable," or "Unsatisfactory" in terms of each of the following criteria:

   a. Performs specific tasks more effectively than other materials/equipment

   b. Performs specific tasks more efficiently and economically than other materials/equipment

   c. Is suited to students' mental and chronological age

   d. Is suited to students' present stage of language development

   e. Will attract and retain students' attention and interest

   f. Presents languages authentically

   g. Presents foreign cultures authentically

   h. Is adaptable to various learning modes (e.g., large group, small group, individual)

Types of materials and equipment that should be subjected to the rating procedure described above are as follows:

Materials

- Basic texts
- Integrated programs-text and audiovisual materials
- Books of culture and civilization
- Conversation books
- Supplemental reading texts
- Books of songs
- Workbooks
- Reference grammars
- Dictionaries
- Student Periodicals
- Teacher Periodicals
- Wall maps
- Desk maps
- Realia
- Books, pamphlets, bulletins on methodology
- Bibliographies
- Resource lists
- Tapes
- Cassettes
- Records
- Slides
- Filmstrips
- Film loops
- Films
- Projectuals

Equipment

- Language laboratory
- Tape recorders
- Cassette recorders
- Record players
- Slide projectors
- Filmstrip projectors
- Film loop projectors
- Movie projectors
- Overhead projectors
- Screens

Useful References

Edgerton, Mills F., Jr., ed. Sight and Sound: The Sensible and Sensitive Use of Audio-Visual Aids. Reports of the Working Committees of the Northeast Conference on the Teaching of Foreign Languages, 1969.

This publication is still one of the most useful single-volume general references on the selection and use of audio-visual materials and equipment for foreign language instruction.

In addition, there are numerous other sources to which schools may turn to meet specific materials and equipment needs. Once the needs have been identified, it is recommended that schools initiate a computer search for appropriate literature by means of the State Education Department's information retrieval system. Requests for such searches, which would insure access to the most up-to-date sources of information, should be addressed to:

Educational Programs and Studies
Information Service (EPSIS)
Room 330
New York State Education Department
Albany, New York 12234
Tel. (518) 474-3639

Health Education

Health education programs should be concerned with educational approaches that help learners to achieve optimal health. Optimal health is the ability of individuals to function to their highest level under existing environmental constraints. Health consists of three dimensions: physical, psychological and social. Physical health results from the promotion and maintenance of the structures and functions of the body. Psychological health consists of the mental, emotional and spiritual elements and is achieved from their promotion and maintenence. Social health results from the promotion and maintenance of people's intra- and inter-personal relations. The three dimensions of health should be perceived as interdependent and interactional, and health education programs should be developed from this holistic point of view.

Health Education Program

Health education programs should be:

- comprehensive
- progressive and sequential
- offered in grades K through 12
- consistent with the developmental levels of the learners
- taught by classroom teachers in the elementary grades
- taught by certificated health educators in the secondary grades
- separate courses at the junior and senior high school levels
- adequately coordinated through all grade levels
- positive in approaches used with emphasis on the promotion and maintenance of health
- related to the realistic health needs and interests of the learners and the community
- learner-centered rather than teacher-centered
- interactional with other disciplines, the school health services, pupil services, and community health programs

In addition, there should be a written curriculum guide on a K-12 basis. This guide should include:

- philosophy and goals
- scope and sequence
- resources
- evaluation

Goals of Health Education

The approaches in health education should be directed toward achieving the following goals:

1. Learners acquiring accurate health knowledge that results in the development of health concepts, comprehensions, and generalizations.

2. Learners developing and reinforcing positive health attitudes, values and appreciations.

3. Learners developing and reinforcing positive health behaviors, expressions, skills, and decision-making.

Evaluation

It is imperative that an evaluation program be established as an integral part of the health education program. Evaluation in health education should be continuous and include the following areas:

- learner progress in achieving the objectives
- effectiveness of methodologies
- effectiveness of materials being used

The evaluation program should provide information needed for making revisions in the health program for greater effectiveness with the next group of learners.

Teaching and Learning Materials

There are numerous and varied health education materials available from a variety of sources. These sources include the governmental and voluntary health agencies, professional organizations and commercial producers. It is imperative that these teaching and learning aids be carefully evaluated prior to use with the learners. Some criteria to be used follows:

Are the materials:

- appropriate for use with the particular group of learners?
- scientifically accurate regarding the information contained therein?
- objective and nonjudgmental?
- motivational?
- timely in content for achieving current objectives of health education?
- void of undesirable advertising?
- appropriate regarding sexism, ethnic and cultural groups?
- positive in approach?
- void of morbid illustrations?

Health Occupations Education

Health Occupations Education is a field of occupational study which focuses on preparation of youth and adults for work in the health care industry. Course organization for the Statewide program in HOE is based upon identified major manpower employment needs. Wherever possible, separate program options are planned to provide students with a set of skills which

will permit flexibility in employment and expedite career mobility. Examples of program offerings include: Dental Assisting, Dental Laboratory Assisting, Health Assisting, Medical Assisting, Medical Laboratory Assisting, Nurse's Assisting, Practical Nursing and others.

In choosing library and learning resources to enrich and extend HOE programs, the focus of concern should be upon the implementation of these programs. A major principle governing specific selections should be the significance of the item or material to the achievement of student behavioral objectives as delineated in the local course(s) of study developed in terms of State guidelines.

Other considerations are:

1. Will the item provide a learning component not otherwise available?
2. Is the material specifically designed to enhance or update currently available instructional resources?
3. Will the new acquisition(s) increase students' perception of employment options in the Health Care Industry?
4. How many students will benefit from the new acquisition(s)?
5. How frequently will the new item be used?
6. Is the material free from ethnic and sex bias, stereotyping, and discrimination?
7. Is the material up to date?
8. How does the price, quality, and effectiveness/efficiency of the selected items compare to other similar items on the market?
9. Is the material adaptable to different teaching/learning methods i.e., large and small groups, individual independent study, other?
10. How will item(s) be made readily accessible to teachers and students?
11. What measures will be used to evaluate the new material and its use?

The following State syllabuses and program development guides are available for local reference:

- Health Occupations Education Program: Dental Assisting, 1973; Program Development Guide #5, 1972
- Health Occupations Education Program: Medical Assisting, 1975; Program Development Guide #6, 1971
- Health Occupations Education Program Development Guide #4: Home Health Assisting, 1975
- Health Occupations Education: Health Services Training Guide, 1968; Program Development Guide #3, 1971
- Health Occupations Education Program: Nurse's Assistant, 1974
- Health Occupations Education Program Development Guide #11: School Health Assisting, 1974
- Health Occupations Education in New York State, Draft 1976

Home Economics Education

The current approach to curriculum planning in home economics provides guidelines for organizing the program into four subject areas and six content emphases. The subject areas are: Human Development; Housing, Furnishings and Equipment; Food and Nutrition; and Clothing and Textiles. The content emphases related to each subject area are: Management, Buymanship, Leisure, Career, Health and Safety, and Relationships.

Facilities play a significant part in the teaching and learning of home economics. They provide the environment and equipment to foster attitudes, appreciations, understandings, and skills for the achievement of satisfying personal, family and community life. Space and equipment provided for the homemaking-family living aspects of home economics education, should permit the development of behaviors identified for each course in the curriculum.

Five basic space areas comprise the home economics facility: 1) Instructional Area, 2) Food Area, 3) Clothing Area, 4) Child Development Area, 5) Hospitality Area. If these areas are adequately equipped and provide sufficient space, all aspects of home economics could be offered.

The following are examples of criteria to be considered in determining material and equipment needs:

Instructional Area

Appropriate equipment and furnishings in an open, flexible space make it possible to effect adaptations necessary for teaching related learnings in all content areas of home economics. Multi-purpose use, variety in styles and models, time and labor saving characteristics are features which will permit convertibility and encourage diversified activities.

Food Area

Learnings in food and nutrition help students gain basic knowledge understanding and skills in evaluating various kinds and types of equipment; in management of space, equipment, energy, time and money in relation to feeding a family; in applying management principles related to food storage, meal planning, preparation and serving. Equipment and furnishings also aid in teaching comparisons such as: surface finishes, materials and construction of cooking utensils, design, color, texture, and materials in table accessories.

Clothing Area

Learnings in clothing and textiles in addition to sewing skills include advantages and disadvantages of different fabrics, basic art principles as applied to clothing, selecting and purchase of clothing, alterations of garments, care and renovation of clothing, personal appearance.

Child Development Area

The study of child development involves the physical, mental, social and emotional growth and development from infancy to adolescence. It is believed that students gain a better understanding of children by observing and working with them. Therefore, facilities and space should be provided within the center for such learning experiences. Some play equipment and furniture should be purchased. However, some may be borrowed from other departments in the school and/or community.

Hospitality Area

The home economics department can convey the atmosphere of a real home through the choice of furnishings and equipment. This area may be adapted to teaching several phases of home economics. A pullman-type kitchen may be included if there is to be only one unit kitchen in the multi-purpose room. Durable but lightweight furnishings should be selected so that a slight rearrangement of furniture with the use of portable screens would serve both as a hospitality center and a setting for furnishings and equipment. In addition to the basic furnishings, equipment which can be stored when not in use makes it possible to have learning experiences in a variety of subject areas.

The study of housing, furnishings and equipment includes selecting, decorating. furnishing and maintaining the living space for individuals and families. Consumer education and management are important parts of this study. Art principles in relation to home furnishings and home safety are also considered. Items used in teaching housing, furnishings and equipment may be the basic furniture pieces in the hospitality area. They can be used to best advantage if varied in type and material.

Humanities Education

Humanities and arts education may be approached under three aspects: as a body of knowledge, as a basic attitude toward life, and as a process mode of instruction. All three are essential to learners beginning pre-K and continuing lifelong. The goal is to assist the learner to discover meaning in life, that is, to develop a positive, humane, personal and social philosophy capable of coping with a world in change.

Besides encompassing the traditional liberal arts, contemporary humanities education includes all our creative expressions of our humaneness. Humanities education is concerned with the quality of life, with ethical and moral problems such as those posed by biogenetic developments, and the impact of a technicist mentality as well as of technology on individuals and society.

Humanities education generates a positive attitude toward life characterized by mutual trust, an inquiring mind, and regard for the past as a resource but not as a norm for the present and future.

As a process mode of instruction, humanities education is not oriented toward specific content. For example, the process can be infused into the

physical, behavioral and social sciences as these relate to human values. In a climate of inquiry and of cooperative problem-solving, teachers facilitate personal discovery by students of unifying life principles significant to the learner.

The Regents' Goals for Elementary, Secondary and Continuing Education state that major goals include: a) "competence in the processes of developing values -- particularly the formation of spiritual, ethical, religious and moral values which are essential to individual dignity and a humane civilization;" and b) "ability to sustain lifetime learning in order to adapt to the new demands, opportunities and values of a changing world." The Goals statement emphasizes that "values education is so pervasive that it must be considered a part of every goal."

One process needed by all persons lifelong is basic problem-solving. Beyond the skills usually described as basic (mathematics and reading skills), such essential skills as (1) personal communication skills, (2) skills in locating and using information from a variety of sources, (3) decision-making, (4) social interaction, (5) critical thinking and reasoning, (6) valuing, (7) ethical and moral reasoning are necessary in all areas of endeavor.

Hence, programs which focus on the teaching and reinforcement of these skills as integral elements in the total school curriculum and which provide students with continuing and continuous opportunities to problem solve using all available data in an interdisciplinary manner are encouraged.

Districts interested in implementing, expanding, and/or disseminating programs of this nature can make effective use of the categories of resources available under ESEA IV B.

Assessment

Survey forms available for determining local school district population needs in humanities/arts education should rarely be used as is, but preferably be adapted to local needs and concerns so that the instruments yield profile information pertinent to educational planning, administrative changes, staff development programs, student involvement and community attitudes and participation.

Resources, Facilities and Equipment

As a body of knowledge, and as educational process and methodology, humanities and arts education responds to contemporary needs. The library resource center plays a vital role in enabling this kind of education to take place.

1. Resources. In humanities/arts programs, constant and integrated use of visual/aural media is essential: photography, slides, radio, motion pictures, television, film strips, opaque projections, computer terminal access. The contemporary communication arts provide vehicles for stimulating productive open-end valuing and decision-making situations, for encouraging creative expressions concerning our human condition and for developing skills

which integrate interdisciplinary approaches and humane purposes in contemporary communications art forms. These productions are to become part of the school or district's permanent teaching resources.

2. Equipment. A sufficient number of projectors, video tape cameras, sound projection equipment, cameras, monitors, etc., should be provided to integrate audiovisual communication arts into the spectrum of content areas. Skill in using and caring for contemporary audiovisual equipment can be a humane life-coping skill which enhances self-concept, relates the learner to the world outside of school, and suggests career possibilities.

3. Facilities. Appropriate facilities include any needed modification of space to provide:
   a. a variety of viewing areas which can be darkened and ventilated conveniently, and which are adequately equipped with electric and electronic capability (including coaxial cables, computer terminal access lines) appropriate for excellent sound, clear visibility, playback, and data access. Seating should be flexible, adapted both to viewing and to informal discussion and writing arrangements.
   b. Production areas in which students K-12 can develop technical skills in the areas specified in the opening paragraph.
   c. Storage facilities in all viewing and workshop areas appropriate to care and use of equipment.

Industrial Arts Education

Industrial arts resources obtained through ESEA Title IV B should enrich and extend students' learning opportunities. Enriched learning experiences in industrial arts provide students with broader exploration into the areas of materials and energy. When proposing new program elements, local planners should spell out the need for and the intended use of the equipment and/or materials to be acquired.

In developing the proposed program, it is suggested that the industrial arts planner answer the following questions:

1. How does the district's present program of industrial arts differ from the recommended program?

2. Which of the lacking program elements could be carried out in the present facilities?

3. How will adding these new program elements enrich education?

4. What written course content has been developed that shows how equipment will be used?

5. What facility planning has taken place to provide for the installation of additional equipment?

6. Have features of items of equipment from different manufacturers been compared?

7. How will the number of students and classes be affected by this equipment?

Initial direction in resolving these questions is available to school personnel in the following Bureau of Industrial Arts Education publications:

- A Program Design for Industrial Arts Education in New York State
- Secondary Industrial Arts, An Instructional Planning Guide
- Secondary Industrial Arts Tools and Equipment
- Early Secondary Industrial Arts, An Instructional Guide
- Early Secondary Industrial Arts Tools and Equipment
- Industrial Arts Facility Planning, A Guide

Mathematics Education

Overview

The governing principles to be followed in the selection of materials and equipment for use in the mathematics program of the district are: (1) how do the items find economical and efficient use in the program to reinforce and further develop pupil skills, and (2) how directly do the items enter into the implementation of the program in the light of its learning objectives. A large collection of materials and equipment at various levels of sophistication does not, in and of itself, assure a quality education.

Thus, the selection of materials and equipment to accompany the program description must be preceded by a careful analysis which takes into account: (1) the identification of the learning objectives of the program, (2) a detailed description of the organization of instruction to be used, i.e., individualized instruction, interactive small group instruction, etc., and (3) based on the preceding determinations, a thorough study of available materials and equipment which seem to have potential for implementation of the program. There is nothing inherent in any piece of equipment or any material which, in and of itself, makes it suitable for any and all programs under consideration.

Additional criteria for the selection of materials could include: (1) do the materials fit the experiential background of the pupils? (2) do the materials foster a creative application of skills? and (3) are the materials suited to the mental and chronological ages of the pupils?

The lists that follow illustrate the types of equipment and materials which may be applicable and are not intended to be all inclusive.

Manipulative devices

- abaci
- clock (demonstration)
- desk calculators, printing
- hand-held calculators, electronic
- mathematical games
- metric measuring devices
- nail boards
- number lines
- peg boards
- place value devices
- simulations
- two- and three-dimensional mathematical models

Audiovisual and textual materials

- activity cards
- audiotapes, cassettes and records
- films and filmstrips
- learning activity packets
- modules
- library books
- multimedia kits
- overhead projection transparencies
- programmed books (non-consumable)
- basic and supplementary texts
- workbooks and drill materials
- periodicals

Evaluation materials

- standardized criterion-referenced tests (preferably with more than one form for pre- and post-tests)
- attitude surveys and other instruments for measuring changes in affective variables

SED Publications Useful in Program Development

- Books That Count
- Selected Books on Mathematics for Teachers
- Operating a Math Lab
- Free Materials for Mathematics Teachers
- Mathematics K-6, a recommended program
- Elementary School Mathematics, A Parents Guide
- Improving Reading - Study Skills in Mathematics Classes
- Developing Mathematical Awareness in Prekindergarten Children
- Number and Numeration, #1 of a series of Informational Pamphlets
- Operations, #2 of a series of Informational Pamphlets
- Operation with Fractions, #3 of a series of Informational Pamphlets
- Problem Solving, #4 of a series of Informational Pamphlets
- Mathematics Courses for the Seventh Year and Eighth Year
- Mathematics 7-8 Handbook
- Ninth Year Mathematics, Course I - Algebra
- General High School Mathematics
- Tenth Year Mathematics
- Eleventh Year Mathematics
- Suggestions for Teaching Mathematics Using Lab Approaches (6 booklets)
- Probability in Elementary Schools
- Let's Use the Metric System

Ideas for Introducing the Metric System
The Metric System, a Teacher's Guide (manual for a videotape series)
Three Year Sequence for High School Mathematics - Course I

Music Education

The entire curriculum for music education in New York State has recently undergone careful analysis, revision, and expansion. New curriculum guides have been developed, published in tentative form, tested in selected school systems throughout the State, revised in accordance with the suggestions of teachers who have actually used them, and then distributed to all schools in completed form. The minimum standards suggested for materials and equipment which follow are supportive of the programs which are described in these guides.

General Music, K-8

1. Two current basal series for each classroom. Every student could be provided with a copy of each.
2. Recordings and teacher's manuals and books which accompany each basal text.
3. Quality stereo sound reproduction equipment including turntable and tape deck assigned for use solely by the music instructor, and equipment for filtering, mixing, switching and splicing.
4. Ready access to a good piano, tuned at least twice a year.
5. The availability of an overhead projector, screen, film projector, filmstrip projector, and at least two cassette tape recorders.
6. A sufficient supply of appropriate rhythm and melody instruments to accommodate the largest classes taught.
7. Library media center containing music books, recordings, record and tape players, films and filmstrips, as well as programmed and self-instructional materials.

Musical Performance, 3-12

1. Ready access to a good piano, tuned at least twice a year.
2. One instruction book should be available to each student enrolled and, if possible, some additional supplementary étude, solo, and ensemble material.
3. A library of large and small ensemble music containing a minimum of two titles for each student enrolled in the respective programs and increased annually by at least 5%.
4. Provide for repair and maintenance of instruments and equipment equal to at least 5% of the current replacement value of the total inventory.
5. At least 8% of the current value of the total inventory of instruments should be set aside annually for the replacement of school-owned instruments.
6. Adequate and secure space should be set aside for the storage of instruments, equipment and the music library.

7. A sufficient number of basic and color instruments to accommodate the complete instrumentation needs of the instrumental organizations should be provided.
8. In schools where class piano is taught, instructors should be provided with a minimum of six good electronic pianos and a teacher's console.

Electives in Musical Knowledge - High School

The area of musical knowledge provides courses for music majors and others interested in increasing their depth of musical understanding. Courses offered in this area may include: General Music 3; Music History and Literature; Music Theory (Sequences I and II); Comprehensive Foundations of Music; Composition and Conducting. For a listing of necessary supplies, see references 1 and 3 below.

Mini-Elective Courses in Attitude Development - High School

The Department publishes guidelines to assist schools in New York State in meeting the needs of students in grades 9 through 12 who might otherwise have little or no opportunity for active participation in music beyond the eighth grade. Publications in this series include recommendations for basic equipment and materials, and are listed in reference 4 below.

Bibliography

All listed resources were prepared by Bureau of Music Education, State Education Department:

1. Words, Sounds and Pictures About Music, a Multimedia Resource Listing for Teachers of Music in Grades 7-12.
2. State Contract for Musical Instruments. An annual listing of good student-grade instruments. Prepared in cooperation with Division of Standards and Purchase, Office of General Services.
3. Music in the High School.
4. Teacher's Guide to Folksinging; Teaching Guitar; Music and the Electronic Medium; Music in Modern American Society.
5. Music K-6. General music teachers' handbook.

Physical Education

The revised Commissioner's Regulations (Section 135.4) have encouraged various curriculum designs which will prepare students to successfully budget leisure time physical activities, so necessary for personal lifetime enjoyment, health and fulfillment. The formal school years need to provide the individual with an opportunity to value physical activities which will express their own interests. The activities introduced to them should be of a quality to be enjoyed throughout adulthood and should provide assistance for maintaining a desired level of physical fitness. The minimum requirements mandated by the Regulations should supportively reflect the concepts, standards, conditions, materials, equipment and attitudes described in the following guide for planning.

The Basic K-12 Program Shall Provide:

...an individualized instructional learning environment based on an assessment of:

- physical and mental maturities
- muscular development
- fitness
- interests
- physical and mental disabilities
- socio-psychological factors
- decision making abilities
- values
- emotional stability
- social skills
- self-concepts
- attitudes
- problem solving skills
- readiness

...instructional and laboratory facilities ample enough to support all curriculum requirements

- classroom
- gymnasia
- aquatics station
- exercise physiology laboratory
- office and conference space
- dressing and showering areas
- outside play and activities areas
- media centers
- adaptive physical education centers
- equipment storage space

...adequate equipment and supplies for the successful implementation of the required curriculum components

- basic and creative movement
- rhythms and dance
- games
- individual and team sports
- outdoor living skills
- perceptual motor skills
- gymnastics
- aquatics (where appropriate)
- lifetime sports activities
- extraclass and athletic participation

...evaluation devices.

- physical fitness pre- and post-testing
- attitude and program surveys
- perceptual motor testing
- analysis of data techniques
- grading and crediting procedures
- proficiency exams
- mainstreaming effectiveness
- teaching effectiveness

Alternative and Optional Programming

Responsible experimentation is encouraged in order that legitimate substitutes will provide students with alternative ways to complete the physical education requirement for graduation. In grades 10-12, these programs need only local approval whereas, below level 10, Commissioner's approval is necessary. This is not to minimize the importance of such programming but to guarantee a curriculum of quality and sequential developmental progressions.

Such courses should provide appropriate credit for physical education and other subject areas.

...Grades 10-12

physical education theory
interdisciplinary contracts
extraclass activities
out-of-school experiences
college programs
specialization
sports law
consumer education
sport journalism
intramural coaching
teaching assistant
physiology of exercise
independent study
community service
career education
officiating
sports announcing
statistics and record keeping
sports photography
communication

This list is not all-inclusive but does present a framework within which teachers may develop a program based upon the values, goals, needs and available resources of those most affected--the teachers, learners, and community.

Other Useful Resources:

1977 AAHPER Publications Catalogue, contains a complete listing of publications and audio-visual resources pertaining to all aspects of health, physical education and recreation (ADDRESS: AAHPER, 1201 16th Street, N.W., Washington, D.C. 20036.

Personalized Learning in Physical Education: 1976 - $7.95. Prepared by the American Alliance for Health, Physical Education and Recreation. (See AAHPER address above.)

Motion and Direction - Physical Education Curriculum Guide, Grades K-12, 1976; State of Indiana, State Board of Health, 1330 West Michigan Street, Indianapolis, Indiana 46206.

Reading Education

The selection of instructional material to support the district reading program must be made in the context of total district philosophy on the organization of instruction. Commitments to individualization in content, interests and pacing must be reflected in instructional materials. In a primary basal textbook approach, selected materials should support the sequence of that program and expand or reinforce student skills.

Before selecting new materials, those already available for the reading program including those in the library media center should be reviewed.

Is there quantitative balance among print and media and software?

Do reading materials include sufficient opportunities for teaching comprehension at interpretive and creative levels as well as at the literal level from pre-reading to secondary levels?

Is the content of present materials relevant to the students' experiential background, interests and learning objectives and skill needs?

Are there sufficient numbers of materials flexible enough to accommodate different teaching styles? different learning styles? varying learning rates?

Do materials lend themselves to a variety of grouping arrangements for instruction? Can they be used by children independently as well as when administered by a teacher?

Do readability levels of present materials match instructional levels of students who are to use them?

Do materials encourage student responses and activity through creative application of skills?

The Bureau of Reading Education believes that the selection of materials should support the concept of diagnostic-prescriptive teaching.

Selection procedures should minimize the tendency to accept advertisers' claims, and encourage a critical analysis. Materials should be sampled with students before decisions are made on their purchase in quantity.

The introduction of new approaches or new materials into the classroom should be preceded and accompanied by inservice training.

The accompanying criteria will provide guidelines for use in selecting instructional materials. Additional statements which reflect the local district's goals should be added.

1. Instructional Management Principles
   a. Which management principle best serves your program goals?
      1. Open classroom
      2. Individual prescription
      3. Teacher directed instructor
   b. Which instructional mode will be operating when the new material is used?
      1. Small group (less than 6)
      2. Large group (6-25)
      3. One-to-one, or tutorial
2. Instructional approaches
   a. Which approach best fits your program?
      1. Programmed instruction
      2. Language experience
      3. Inductive reasoning
      4. Eclectic
   b. Which emphasis should be reflected in each of the materials you select?
      1. Decoding
      2. Comprehension

3. Content

   a. How accurate is the content? (both text and manual)
   b. Is the material relevant for the target group of students?
   c. Is the material highly motivational?
   d. Is discrimination avoided? (racial, religious, ethnic, sexist)
   e. Is it appropriate to student learning modality and style?
   f. Is the readability appropriate for the students using it?
   g. Is the format and artistry of the material appealing to the learner?
   h. Is the print size and clarity appropriate to the developmental age of the learner?
   i. Does the format require learner to reorganize and communicate meaning obtained through verbal or written forms?

4. Goals and Objectives

   a. Are goals and measurable objectives for this material specifically stated for both students and teachers?
   b. Is the concept complexity of the material appropriate to the learners' age and interest?
   c. Is the level of readability an appropriate match for the instructional levels of the learners?

5. Scope and Sequence

   a. Does the material present a reasonable sequential program of skills compatible with district sequences?
   b. Can you focus on particular skills to individualize instruction?
   c. Does the material offer tests for appropriate placement of learners?
   d. Are enough provisions made for reinforcement and differentiated pacing of learning activities?

6. Evaluation

   a. Does the program provide means for evaluating mastery of skills included in the instructional sequence?
   b. Are standards for progression through levels of instruction provided?

Safety Education

Overview

A wide variety of educational publications, media, and aids are available for utilization by the secondary school traffic safety educator. While the range of materials varies widely, the overall purpose is to increase the teacher's effectiveness while working with the young people being served.

Traffic safety education, being a field which lends itself well to photography, has encouraged film producers across the country to produce high quality media covering a wide range of specific responsibilities and tasks.

Hardware for the dual-controlled driver education vehicle is available from several manufacturers. Traffic education vehicle-identification signs, teacher rear view mirrors, dual-controlled brakes, controls for the handicapped, and numerous other devices are readily available from several retailers.

Classroom instruction is supplemented with numerous 16mm films, 35mm filmstrips, audiotapes and overhead transparencies.

Driver education teachers frequently overuse existing media, thus allowing too little time for teacher/student interaction. The decision to show a software presentation is an individual one, depending on student need and progress and should be examined closely by the teacher.

Hardware (Laboratory in-car instruction)

Dual brake
Dual accelerator
Ignition cutoff switch
Dual mirror
Pedal extensions
Elevator cushions
Vehicle-identification signs
Brake detonator
Blowout simulator

Hardware for Classroom Use

Psycho-physical testing devices
Traffic magnetic board
Student responders
Student workbooks

Science Education

A supply of science materials and equipment for grades K-12 should be available for individual and small group activities in quantities sufficient to carry out a locally adopted curriculum.

This curriculum should provide for a reasonable balance between "content" and "process," between theories, concepts and technological information and the development of laboratory skills and modes of scientific inquiry. Both carriers of information and laboratory equipment will be needed.

In respect to equipment, a higher priority should be given to those items that permit pupils to actively engage in science activities, such as meter sticks, beakers, test tubes, pulleys, wire, light bulbs, batteries,

hand lenses, etc. Lower priority should be given to items which are relatively more expensive and which foster a more passive type of learning, such as large aquariums and movie projectors.

When ordering science materials and equipment, care should be taken not to order items that are shoddy, uneconomical, inappropriate and/or obsolete.

Storage facilities in science rooms should be adequate and readily accessible for the storage of the increased amounts of supplies and equipment required by modern science courses.

In summary, curricula changes in science should be reflected by additions and omissions of certain materials and equipment. Purchases of equipment and supplies should be adapted to the school's own courses of study, qualifications of the teachers, funds available, and other needs characteristic of a particular school district.

Publications of the following professional associations are sources of bibliographic and other information useful to teachers of elementary and/or secondary science:

American Association for the Advancement of Science (AAAS), 1515 Massachusetts Avenue, N.W., Washington, D.C. 20005; AAAS Science Books and Films (quarterly); Science Book List for Children, 3rd ed., 1972; Science Book List, 3rd ed., 1970; AAAS Science Film Catalog, 1st ed., 1975.

American Association of Physics Teachers (AAPT), AAPT Executive Office, SUNY at Stony Brook, Stony Brook, NY 11794; The Physics Teacher (monthly).

Division of Chemical Education, American Chemical Society (ACS), Joy A. Young, Division Secretary, Auburn University, Auburn, AL 36830; Journal of Chemical Education (monthly)

National Association of Biology Teachers (NABT), 11250 Roger Bacon Drive, Reston, VA 22090; American Biology Teacher (monthly)

National Science Teachers Association (NSTA), 1741 Connecticut Avenue, N.W., Washington, D.C. 20009. The Science Teacher (secondary monthly); Science and Children (elementary quarterly); many other non-periodical publications helpful to teachers.

Social Studies Education

The kinds of materials and equipment selected in connection with a social studies program obviously will vary widely depending upon the focus of the particular program. In fact, the key factor in judging materials and equipment should be the extent to which they are consistent with the program. This requires that careful, systematic selection procedures should be followed. Any proposal should indicate what procedures have been followed and should spell out clearly the relationship between the materials and equipment and the program.

There are, of course, a number of models for the analysis of social studies curriculum materials. One of the more systematic models, called the Curriculum Materials Analysis System (CMAS), has been developed by the Social Science Education Consortium in Boulder, Colorado. Copies of CMAS, in either its short or long form, may be obtained from the Social Science Education Consortium, 855 Broadway, Boulder, Colorado 80302. The Consortium has used this system to analyze a large body of social studies materials and has published the results in a Social Studies Curriculum Materials Data Book, which is also available. The Data Book contains information on social studies project materials, textbooks, games and simulations and some other supplementary materials. It should be restated that other good models for the analysis of curriculum material exist and could be used. The Curriculum Materials Analysis System is used here as an example of one such system.

In addition to the basic questions of consistency with program and of systematic selection, the following are some other considerations which should be taken into account when selecting social studies materials and equipment, including those in library media centers:

1. All materials should be free of bias and stereotypes in relation to race, religion, sex and ethnic groups. The diversity of peoples in the world in regard to these areas should be reflected in the materials.
2. Materials should be appropriate to the reading levels, maturity levels and interest levels of the students for whom they are intended.
3. There should be a reasonable balance between print and non-print materials. The nature of the balance will, of course, vary according to the program.
4. Materials should involve students in a variety of types of activity. For instance, materials and equipment that could be adapted for individualized projects should be included.
5. Materials should be carefully reviewed in terms of timeliness. They should be examined for out-of-date information, concepts and interpretations. On the other hand, they should not be so "timely" and narrow in scope as to be obsolete in the near future.
6. Some of the material should be conceptual and open-ended rather than purely informational so that student involvement in the learning process is encouraged.

Useful references prepared by the Bureau of Social Studies Education:

- Manual of Exercises for Developing Social Studies Skills
- Planning for Social Studies in Elementary Education
- Respect for Rules and Law: A K-2 Teaching System (Resource Guide)

Resource Guides:

- Social Studies: A Teaching System. Gr. 1, Gr. 2, Gr. 3 Parts I and II, Gr. 4 and Gr. 6 Eastern Europe
- New York in Books. Gr. 7
- Teaching Pre-Columbian Culture: The Iroquois. Gr. 7
- Teaching the Age of Homespun. Gr. 7

- Teaching the Age of the City: The Gilded Age. Gr. 7
- United States History: The Black Perspectives. Gr. 8
- Teaching About Africa-South of the Sahara. Gr. 9
- Teaching About India. Gr. 10
- Teaching About the People's Republic of China. Parts I and II. Gr. 9
- American Civilization in Historical Perspectives. Parts I and II
- Teaching About American Economic Life
- Teaching About the Basic Legal Concepts in the Junior High School
- Teaching About the Basic Legal Concepts in the Senior High School
- Teaching About Latin America. Gr. 12
- Reviewing the Curriculum for Sexism
- Essay Questions in Social Studies, A Guide to Analyzing Questions and Responses

Publications of the following professional associations are sources of bibliographic and other information useful to administrators and teachers of elementary or secondary social studies.

National Council for the Social Studies(NCSS), Suite 101, 1515 Wilson Blvd., Arlington, VA 22209. Ask for publication list.

Social Science Education Consortium, Inc., 855 Broadway, Boulder, Colorado 80302. Ask for publication list.

Social Studies School Service, 10,000 Culver Blvd., P.O. Box 802, Culver City, California 90230. Most complete listing of teaching materials available on commercial basis. Ask for catalog.

American Bar Association, Special Committee on Youth Education for Citizenship, 1155 East 60th Street, Chicago, Illinois 60637. Request publications lists.

Joint Council on Economic Education, 1212 Avenue of the Americas, New York, New York 10036. Request extensive publications list.

The Society for History Education, California State University at Long Beach, Long Beach, California 90840.

Trade and Technical Education

The primary purpose of trade and technical education is to prepare students for work at the entry level or for entry into post-secondary schools for occupational training.

Trade and technical education concerns itself with the development of the cognitive, affective and psycho-motor skills, with a heavy emphasis on the latter. Because it prepares people to work in an industrial society, and a close simulation of the working environment is used, industrial equipment and materials are needed. Equipment, books, supplies and other resources to conduct instruction must be supplied. Please note, however, that consumables cannot be funded under this title.

Several questions must be answered when trade and technical instructional materials or equipment are requested, and the narrative part of proposals should answer the following questions:

- What are the documented needs that are not being met with resources currently being used?
- Is there a clear statement of purpose and objectives?
- How will additional resources assist in meeting the needs and objectives identified?
- Is there a plan for use of the items requested?
- What other instructional materials already available will be used in conjunction with new acquisitions?
- Are there existing facilities for this purpose? If not, how will they be acquired?
- Is there existing curriculum for the project? If not, how will it be developed?
- Who are the students who will benefit from these new materials?
- What are the potential job opportunities that will be enhanced by the use of the new materials?
- How will students' opportunities to obtain available or potential jobs be enhanced through use of the new materials?
- Has the occupational advisory council considered and recommended this proposal?
- How will the extent to which these additional resources will have improved the program be evaluated?